For all $A, B \in M_{mn}$ and for all $1 \leq i \leq m$, $1 \leq i \leq n$,

Para todos A, B $\epsilon$ M$_{\boldsymbol{mn}}$ y para todos $1 \leq \boldsymbol{i} \leq \boldsymbol{m}$, $1 \leq \boldsymbol{i} \leq \boldsymbol{n}$

$$\begin{aligned}[A+B]_{\boldsymbol{ij}} &= [A]_{\boldsymbol{ij}} + [B]_{\boldsymbol{ij}} \\ &= [B]_{\boldsymbol{ij}} + [A]_{ij} \\ &= [B+A]_{\boldsymbol{ij}}\end{aligned}$$

With equality of each entry of the matrices $A+B$ and $B+A$ being equal ⟨acronymref|definition|ME⟩ tells us the two matrices are equal.

con igualdad de cada entrada de las matrices A+B y B+A siendo iguales ⟨acronymref|definition|ME⟩ nos dice que las dos matrices son iguales.